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13 May 1969

MEMORANDUM FOR: Deputy for Materiel, OSA

SUBJECT: Possible Interface Problem Area Affecting
                  IRIS II Performance

1.   The undersigned was notified by [   ] Itek,   25X1A
via telecon on 12 May 1969 of a problem, which if not
corrected, will affect the performance of the IRIS II.

2.   The problem became evident after an analysis was
made of Test Mission GT 69-192 on 2 May 1969 utilizing
IRIS II SN-002. Findings from the analysis of this mission
also afforded explanations to hereto unexplainable anomalies
occurring in flight with IRIS II which could not be reproduced
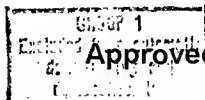at postflight.

3.   During GT 69-192, the "A" light came on intermittently
indicating malfunction, yet when SN-002 was thoroughly post-
flighted, the configuration operated flawlessly. Some items
were noted, however:

     A.   Some misframing took place.

     B.   Imagery was soft on some of the frames.

     C.   The makeup bottle, which contains $\frac{1}{2}$ hour of
          nitrogen to supply gas to the air bars of the
          IRIS II, was empty.

4.   It is suspected the basic problem is a fluctuation
of primary and secondary power which supplies AC to the
28 volt power supply which in turn supplies the 6 volts to
the regulator in the IRIS II which controls the encoder pulses.
The Primary AC is the only power available to the heater blower
and air compressor. It is my understanding when the engine
is throttled back, the 28 volt input to the regulator is
reduced considerably; conversely, the only time 28 volts $\pm \frac{1}{2}$ volt
is supplied is when aircraft is in a cruise-climb condition.
The effects of fluctuations in 28 volt power source were more
apparent in SN-002 for its regulator was set at 5.4 volts.
The card establishing voltage on SN-002 regulator has been
changed to 6.12 volts, but this can be dangerous also in the
event of power surges.

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5.　ITEK has sent a TWX to LAC (See [   ] dated　25X1A
12 May 69) asking for data pertaining to power input.

[   ] 25X1A

SSD/R&D/OSA

25X1A　　SSD/R&D/OSA,[   ]bjg
Distribution:
　　Copy 1 - D/M/OSA
　　　　 2 - D/O/OSA
　　　　 3 - IDEA/O/OSA
　　　　 4 - CMD/OSA
　　　　 5 - DD/SA
　　　　 6 - D/R&D/OSA
　　　　 7 - A(T)D/R&D/OSA
　　　　 8 - SSD/R&D/OSA
　　　　 9 - SSD Chrono
　　　10 - RB/SA